

FORM PTO-1390 (REV. 07-2005)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		EXPRESS MAIL NUMBER EV 728 110 654 US	ATTORNEY'S DOCKET NUMBER 036017/US/2 - 475396-00153
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/553618	
INTERNATIONAL APPLICATION NO. PCT/US2003/037114		INTERNATIONAL FILING DATE November 20, 2003		PRIORITY DATE CLAIMED November 20, 2002	
TITLE OF INVENTION SYSTEM, PROCESS AND SOFTWARE ARRANGEMENT FOR DISEASE DETECTION USING GENOME WIDE HAPLOTYPE MAPS					
APPLICANT(S) FOR DO/EO/US BUD MISHRA and THOMAS ANANTHARAMAN					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other					
1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input checked="" type="checkbox"/> The US has been elected (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English translation of the International Application as filed (35 U.S.C. 371(c)(2)). a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are attached hereto (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> had been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36					
Items 11 to 20. below concern document(s) or information included:					
11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included 13. <input checked="" type="checkbox"/> A preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825 18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4) 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 20. <input checked="" type="checkbox"/> Other items or information: PTO-1449 form with one reference, Petition to Revive Unintentionally Abandoned Application and Return Receipt Postcard					

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 1.5) 10/553618 To be assigned		INTERNATIONAL APPLICATION NO. PCT/US2003/037114		ATTORNEY'S DOCKET NUMBER 036017/US/2 - 475396- 00153	
21. The following fees have been submitted:				CALCULATIONS	PTO USE ONLY
<input checked="" type="checkbox"/> a) Basic national fee (37 CFR 1.492(a))..... \$300.00				\$ 300	
22. <input checked="" type="checkbox"/> Examination fee (37 CFR 492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)--4)..... \$0.00					
All other situations..... \$200.00				\$ 200	
23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)--4) \$0.00 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100.00 International Search Report prepared and provided to the Office \$400.00 All other situations \$500.00					
TOTAL OF 21, 22 and 23 =				\$ 600	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100	/50 =		x \$250.00		
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	17 -20 =	0	x \$50.00	\$	
Independent claims	4 -3 =	1	x \$200.00	\$200	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$800	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$400	
SUBTOTAL =				\$	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$	
Fee for recording the enclose assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED =				\$400	
				Amount to be refunded:	\$
				charged:	\$

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 1.5) <div style="font-size: 1.5em; font-weight: bold; text-align: center;">10/553618</div> <div style="font-size: 0.8em; text-align: center;">To be assigned</div>	INTERNATIONAL APPLICATION NO. <div style="text-align: center;">PCT/US2003/037114</div>	ATTORNEY'S DOCKET NUMBER <div style="text-align: center;">036017/US/2 - 475396-00153</div>
--	---	---

a. ☒ A check in the amount \$400 to cover the above fees is enclosed.
of


b. ☐ Please charge my Deposit Account No. 50-2054 in the amount of \$_____ to cover the above fees.
A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to
Deposit Account No. 50-2054 A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO: **CUSTOMER NUMBER 30873**

Dorsey & Whitney LLP Intellectual Property Department 250 Park Avenue New York, New York 10177	<div style="text-align: center;">  <hr style="border: 0; border-top: 1px solid black;"/> Signature Gary Abelev, Esq. </div> <div style="text-align: center; margin-top: 10px;"> <hr style="border: 0; border-top: 1px solid black;"/> Name 40,479 </div> <div style="text-align: center; margin-top: 10px;"> <hr style="border: 0; border-top: 1px solid black;"/> Registration Number </div> <div style="float: right; width: 20%; border: 1px solid black; padding: 5px; margin-top: 10px;"> Date October 17, 2005 </div>
---	--